

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Divisional Application of:

BJARNASON

Serial No.: 09/411,688

Group Art Unit: 1651

Filed: October 12, 1999

Examiner: Unknown

Title: FISH SERINE PROTEINASES AND THEIR PHARMACEUTICAL  
AND COSMETIC USE

\* \* \* \* \*

January 7, 2002

**PRELIMINARY AMENDMENT**

Hon. Commissioner of Patents  
Washington, D.C. 20231

Sir:

Prior to examining this Divisional application on the merits, kindly enter the following preliminary amendments to the application.

**IN THE SPECIFICATION:**

Kindly insert the following new paragraph into page 1 of the specification, immediately below the title.

--This application claims the benefit of prior U.S. application 09/411,688, filed October 12, 1999, the contents of which are incorporated herein by reference. Priority is also claimed under 35 U.S.C. §§119/365 to Application No 5086/99, filed in Iceland on June 18, 1999, the contents of which are hereby incorporated herein by reference.--

**IN THE CLAIMS:**

Kindly cancel claims 1-27, 32-39 without prejudice or disclaimer prior to calculating the claim fees for the application.

Kindly enter the following amended claims.

28. (Amended) A method of treating, preventing or treating and preventing a disease in a human or an animal comprising administering a pharmaceutically effective amount of a fish serine proteinase,

wherein said disease is a member selected from the group consisting of pain, acute inflammation, chronic inflammation, arthritis, inflamed joints, bursitis, osteoarthritis, rheumatoid arthritis, juvenile rheumatoid arthritis, septic arthritis, fibromyalgia, systemic lupus erythematosus, phlebitis, tendinitis, rash, psoriasis, acne, eczema, facial seborrheic eczema, eczema of the hands, face or neck, foreskin infections, athlete's foot, fistulae infections, infected topical ulcers, navel infections in newborns, wrinkles, scars, keloids, boils, warts and allergic itch, hemorrhoids, wounds, wound infections, wounds from burns and a fungal infection.

29 (Amended) The method according to claim 28, wherein the proteinase is a trypsin.

30. (Amended) The method according to claim 28, wherein the proteinase is administered topically.

31 (Amended) The method according to claim 28, wherein the proteinase is administered gastroenterally.

Kindly enter the following new claims.

40. (New) The method according to claim 28, wherein the proteinase is obtained from Atlantic cod.

41. (New) The method according to claim 29, wherein the trypsin is obtained from Atlantic cod.

42. (New) The method according to claim 41, wherein the trypsin is selected from the group consisting of trypsin I, trypsin II and trypsin III.

43. (New) The method according to claim 29, wherein the trypsin has at least 90% amino acid sequence homology with any of trypsin I, trypsin II, trypsin III derived from Atlantic cod.

44. (New) A method of removing dead or peeling skin from otherwise healthy skin, comprising administering a pharmaceutically effective amount of a fish serine proteinase.

45. (New) The method according to claim 44, wherein the proteinase is a trypsin.

46. (New) The method according to claim 45, wherein the trypsin is obtained from Atlantic cod.

47. (New) The method according to claim 46, wherein the trypsin is selected from the group consisting of trypsin I, trypsin II and trypsin III.

48. (New) The method according to claim 45, wherein the trypsin has at least 90% amino acid sequence homology with any of trypsin I, trypsin II and trypsin III derived from Atlantic cod.

49. (New) The method according to claim 44, wherein the proteinase is not multifunctional.

50. (New) The method according to claim 44, wherein the proteinase is administered topically.--

**REMARKS**

The specification has been preliminarily amended to recite claims to priority based on previously filed parental applications. No new matter has been added to the application via this amendment to the specification.

Claims 28-31 and 40-50 are pending examination in this application. Claims 1-27 and 32-39 have been canceled without prejudice or disclaimer. New claims 40-50 have been added. Applicants have preliminarily amended claims to better define methods of treating and/or preventing diseases. Support for the amendments to the claims can be found throughout the application as filed. In particular, support for amended claim 28 can be found in the specification at page 9, line 17- page 14, line 26. Amended claims 29-31 find support in the specification at page 13, lines 21 –34.

New claims 40, 41, 45 and 46 find support in the specification at page 12, lines 4-19. Support for new claims 42, 43, 47 and 48 can be found in the specification at page 3, lines 26-35; page 12, line 21 through page 13, line 3; and page 15, lines 12-17. New claims 44 and 50 find support in the specification at page 7, lines 21-23; page 9, lines 13-24 and page 13, lines 17-34. Applicants respectfully submit that no new matter has been introduced into the application via these amendments to the claims.

An early and favorable Action on the merits is respectfully requested. Should any questions regarding the patentability of the claims arise, the Examiner is invited to telephone the undersigned to discuss the same.

Respectfully submitted,

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**APPENDIX**  
**MARK UP VERSION SHOWING CHANGES MADE**

**IN THE CLAIMS:**

The claims have been amended as indicated below.

28. (Amended) A method of treating, preventing or treating and [and/or] preventing a disease in a human or an animal comprising administering a pharmaceutically effective amount of a fish serine proteinase,  
wherein said disease is a member selected from the group consisting of pain, acute inflammation, chronic inflammation, arthritis, inflamed joints, bursitis, osteoarthritis, rheumatoid arthritis, juvenile rheumatoid arthritis, septic arthritis, fibromyalgia, systemic lupus erythematosus, phlebitis, tendinitis, rash, psoriasis, acne, eczema, facial seborrheic eczema, eczema of the hands, face or neck, foreskin infections, athlete's foot, fistulae infections, infected topical ulcers, navel infections in newborns, wrinkles, scars, keloids, boils, warts and allergic itch, hemorrhoids, wounds, wound infections, wounds from burns and a fungal infection.

29. (Amended) The [A] method according to claim 28, wherein the proteinase is a trypsin [proteinase according to any of claims 2-11].

30. (Amended) The [A] method according to claim 28, wherein the proteinase is administered topically.

31. (Amended) The [A] method according to claim 28, wherein the proteinase is administered gastroenterally.